

REMARKS

This amendment responds to the Office Action which was mailed on May 18, 2005. In light of the arguments and remarks set forth below, it is respectfully submitted that Claims 1-7, 10-12, and 17-20 are in condition for allowance. Applicant requests a favorable reconsideration of this application in light of the remarks set forth below which constitute a full and complete response to the outstanding Office Action.

The drawings were objected to under 37 CFR § 1.83(a) because they fail to show head harness 35 engaging the back of a user's head as described in the specification. Proposed drawing correction to Fig. 2 showing the claimed head harness 35 is enclosed. Also provided is a final corrected Fig. 4 reflecting proposed changes previously accepted.

Applicant appreciates withdrawal of the previous rejection of Claims 1 and 17 under 35 U.S.C. § 103(a) as unpatentable over Gallet, U.S. Pat. No. 4,817,596. Upon further examination, however, Claims 1, 3, 4, 6, 7, 10, 11, 17, 19, and 20 have now been rejected under 35 U.S.C. § 103(a) as being unpatentable over Gallet further in view of Vogliano, U.S. Pat. No. 5,191,882.

It has been asserted that Gallet teaches the elements of Claims 1 and 17, the two independent claims in the case, with the exception of wherein the face protection shell comprises impact resistant material, and the limitation of an adjustable head harness attached at a surface of the face protection shell or face seal which is capable of engaging the back of a user's head. It is asserted that it would have been considered obvious to use impact resistant material to prevent breakage. It has also been asserted that Vogliano teaches an apparatus with a common head harness attached to a surface of the shell or the face seal, therefore it would have been obvious to include the adjustable heads harness of

Vogliano with the modular helmet-mask assembly of Gallet to allow the face protection assembly to be worn without the use of the helmet.

It is well established law that a determination of obviousness requires that the combined prior art not only teach all the elements of the claimed invention, but that the prior art provide some suggestion or motivation for the combination. It is respectfully submitted that Gallet and Vogliano do not actually teach, disclose, and/or suggest all of the claim limitations of Claims 1 and 17 and that, therefore, the rejection under 35 U.S.C. § 103(a) should be withdrawn.

It has been conceded that Gallet does not teach a face protection shell (mask) in a helmet-mask assembly including "an adjustable head harness" as claimed by applicant. However, it has now been asserted that Vogliano teaches an adjustable head harness for a mask, and therefore it would have been obvious to combine the harness of Vogliano with the helmet-mask assembly of Gallet.

However, Vogliano teaches an apparatus for enabling a strapless mask, which is designed only for use with a protective helmet, to be worn without the helmet. Vogliano teaches that a strapless mask (which is ordinarily only used with a helmet) can be removed from the helmet and inserted into a detachable, resilient mask holder (Vogliano's invention) so that the strapless breathing mask can be used without the helmet. Under normal operations, the strapless mask would be attached to the helmet using a helmet mounted connector system. Should the helmet be removed, the strapless mask can be fitted with Vogliano's mask holder (suspension system) to allow the mask to be worn without the helmet.

This approach has two main problems. First, the helmet can not be removed without losing mask protection. Second, the mask holder/suspension system of Vogliano and the helmet are not being designed to work together in any way.

Simply put, there is no teaching or suggestion in Vogliano that the mask holder system described therein can or should be used in combination with the helmet. In fact, Vogliano expressly teaches that the mask holder/suspension is intended to be used only when the mask is not being used in combination with the helmet. Essentially, Vogliano teaches away from using the suspension system when the strapless mask is combined with a helmet. Furthermore, even if Vogliano's mask holder/suspension were used under the helmet it does not provide any capability over a standard non-integrated mask and helmet system. Comfort, stability, and protection problems between the mask and the helmet will persist as is common with all non-integrated helmet systems available on today's market. A high-protection factor mask seal is simply not maintained in non-integrated mask-helmet combinations.

In contrast, applicant's invention overcomes the problems of Gallet and Vogliano by providing for a means of achieving a very high level of protection while providing for a comfortable and stable integrated helmet solution. Additionally, applicant's invention overcomes the problems of Vogliano by providing an integrated helmet solution in which the helmet can be removed without losing protection within the mask.

Furthermore, applicant's invention overcomes the limited protection offered in either Gallet or Vogliano, which simply attaches a mask to the helmet without any teaching of an adjustable head harness attached to the mask for engaging the user's head. Vogliano only teaches the use of a harness when the mask is not being used with a

helmet. In contrast, applicant's invention allows for a positive seal on the face using the mask suspension, a positive seal on the helmet by using the helmet connector ratcheting system, and it provides for helmet stability using the helmet stabilization device. All three are adjustable while maintaining a controlled interface between the mask and the helmet to maximize comfort. Applicant's "floating" seal makes this possible.

Applicant's face protection shell (or mask) includes its own adjustable head harness which is capable of engaging the back of the user's head to thereby adjustably secure the face seal and nose cup assembly to the user's face. This adjustable harness is included as an element of the face protection shell in Claims 1 and 17, and is described on page 10, lines 1-9, of the specification. In contrast, the face protection shell or mask of Gallet does not include a head harness to secure the mask to the user's face, but rather only attaches to the sides of the helmet through the two-point hook and spring system. In addition, Vogliano only teaches a mask holder to be used with a strapless mask when it is not in combination with a helmet. There is no suggestion or motivation for using the mask holder in combination with a helmet. Furthermore, even if Vogliano's holder were used with the mask in combination with a helmet, it provides no improvements over any other standard, already existing, non-integrated mask-helmet combination currently available.

The combination of Gallet and Vogliano simply does not teach and/or suggest applicant's integrated mask-helmet assembly which comprises a helmet and a face protection assembly (mask) including an adjustable head harness for sealing the assembly (mask) to the user's face, and wherein the mask assembly and helmet are alternately attachable to and detachable from one another such that mask protection is not lost.

It should be recognized that applicant's have designed a modular helmet-mask assembly that addresses a long desired need to provide both helmet and face mask protection while maintaining a face seal that provides a very high protection factor required for military personnel operating in a chemical or biological warfare environment. It does this by including an internal harness system as part of the mask which seals the mask (face protection shell) to the face of the user, and lets the helmet system be engaged with the mask in a fashion that will not affect the seal after the face protection shell is attached to the helmet and the helmet stabilized. While many helmets provide crash and ballistic protection, applicants are not aware of any that provide internal chemical-biological protection without the use of some external means of forced blown filtered air.


In contrast, applicant's design provides a high, military level, protection factor because the mask (face protection shell) is sealed to the face using an adjustable head harness which engages the back of the wearer's head and is preferably connected to the mask facepiece, as reflected in Claim 1. In addition, Claim 17 clearly recites a method for donning the mask-helmet assembly such that an effective seal is maintained even after the helmet is engaged to the mask. Applicant's invention also provides for an adjustment pad at the back of the helmet to better position the helmet on the user's head. The combination of Gallet and Vogliano does not teach, disclose, suggest or provide motivation for the applicant's invention as recited in Claims 1 and 17. Of course, Claims 2-7 and 10-12 are dependent from Claim 1, and Claims 18-20 are dependent from Claim 17, and are further limiting thereto. Therefore, these claims should also be in condition for allowance.

It is respectfully submitted that since the elements of Claims 1 and 17 are not taught, disclosed, or even suggested by the combined teachings of Gallet and Vogliano or the prior art previously cited, nor is any motivation provided for the claimed elements of applicant's invention, Claims 1 and 17 should be considered patentable and in condition for allowance. Moreover, since Claims 2-7 and 10-12 are directly or indirectly dependent from Claim 1 and are further limiting thereto, and since Claims 18-20 are directly dependent from Claim 17 and are further limiting thereto, Claims 2-7, 10-12, and 18-20 are also patentable and in condition for allowance.

In summary, Claims 1-7, 10-12, and 17-20 remain in the case and based on the foregoing arguments should not be considered obvious over the prior art cited. Accordingly, it is respectfully submitted that these claims are patentable and in condition for allowance. Early reconsideration and withdrawal of the rejections is earnestly solicited, as is allowance of the claimed subject matter.

Respectfully submitted,

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